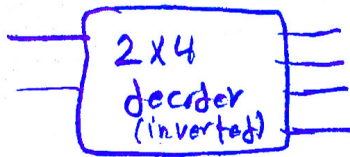
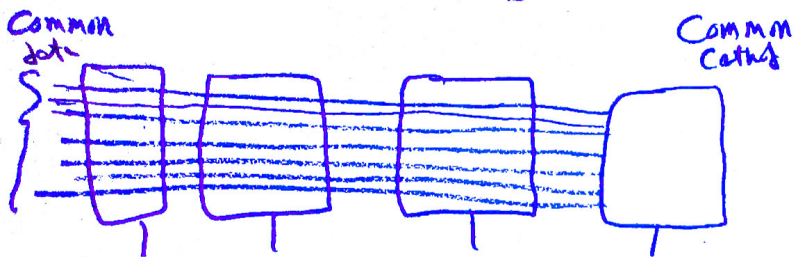


Optional Task

Counter $0 \rightarrow 9999$
with $4 \rightarrow 7$ -seg
with 2 Ports



Fast change in value and selection
Cause vision illusion
We can see numbers in all
7-seg as it selected all the time

Port C
input/output

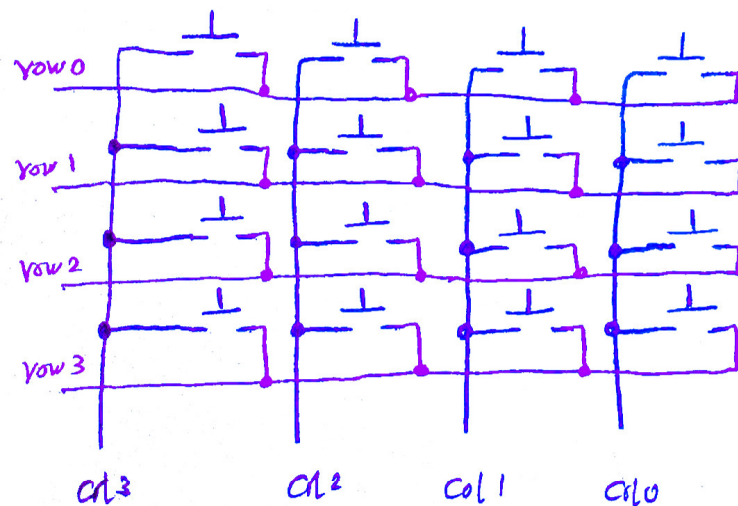
Port D (output)

$\left. \begin{array}{l} B0 \\ B1 \\ B2 \\ B3 \end{array} \right\} \text{row}$

$\left[\begin{array}{l} B4 \\ B5 \\ B6 \\ B7 \end{array} \right] \text{col}$

Key Pad

4x4 Matrix



Idea 1

row input \rightarrow loop out check
col output

Idea 2

row i/o \rightarrow read when out
col i/o \rightarrow read when out
and intersection